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ABSTRACT

This handbook is designed to help the sponsors, staff, and partners of Neighborhood Networks Centers, which serve apartment properties assisted or insured by the Department of Housing and Urban Development, to develop effective programs for young people under the age of 18. Part 1 identifies key issues in creating programs and highlights effective strategies for program design, support, and staffing. Part 2 includes case studies of successful youth programs in Neighborhood Networks Centers and other community programs. Four urban programs are profiled. Part 3 provides an annotated list of 29 resources that can help center staff develop youth programs. (SLD)

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Neighborhood Networks

Youth Education Programs for Neighborhood Networks Centers

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YOUTH EDUCATION PROGRAMS FOR NEIGHBORHOOD NETWORKS CENTERS

JUNE 1999

This publication was developed by the U.S. Department of Housing and Urban Development to assist in the planning and development of Neighborhood Networks centers.

The guides in this series offer "how to" information on starting up a center, creating programs and identifying center partners; center and program profiles and a wealth of resources.

Neighborhood Networks is a community-based initiative established by the U.S. Department of Housing and Urban Development (HUD) in 1995. Since then, hundreds of centers have opened throughout the United States. These centers provide residents of HUD-assisted and/or -insured properties with programs, activities and training promoting economic self-sufficiency. These guides contain examples of successful center initiatives and how you can replicate them.

To receive copies of this publication or any others in the series, contact:

U.S. Department of Housing and Urban Development
Neighborhood Networks
9300 Lee Highway
Fairfax, VA 22031-1207

Neighborhood Networks Information Center
Toll-free (888) 312-2743
TTY: (703) 934-3230

All publications are available from the Neighborhood Networks website at:

www.neighborhoodnetworks.org

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Youth Education Programs for Neighborhood Networks Centers

Introduction

Youth education programs are a major focus for Neighborhood Networks centers serving HUD-assisted and/or -insured apartment properties with a large proportion of families. Many of these centers are using technology to help children achieve academic success, foster joy in learning, expand career horizons and promote critical thinking skills.

In 1998, only about one quarter of inner city homes had computers – compared to about 80 percent of homes in affluent suburbs. That makes computer access at Neighborhood Networks centers especially critical for low-income children. In *Impact of CTCNet Affiliates* (1998), the research team of Chow, Ellis, Mark and Wise found that "providing a friendly, supportive environment in which to learn about computers or use them in the pursuit of other goals is a key feature of community technology centers." In a 1997 study, *Community Technology Centers: Impact on Individual Participants and Their Communities*, the researchers found that young people went to the centers because their parents believed the centers were safe and helped children stay out of trouble and away from drugs. The centers also offered access to "learning opportunities, computers, fun activities, and people to help with homework," the research team concluded.

This handbook is designed for Neighborhood Networks center sponsors, staff and partners who want to create effective programs for young people under the age of 18.

Part One identifies key issues in creating programs for youth and highlights effective strategies – including how to design youth programs that correspond to child development stages, how to support and augment the school experience, and how best to find staff, partners and volunteers for youth programs.

Part Two includes case studies of successful youth programs in Neighborhood Networks centers and other community settings.

- ❑ Gateway@Edgewood Terrace: Washington, DC
- ❑ MACademia! at the Somerville Community Computing Center: Somerville, MA
- ❑ The Youth Center at the Bresee Foundation: Los Angeles, CA
- ❑ Lansing Housing Commission: Lansing, MI
- ❑ Other Examples

Part Three provides an annotated list of resources that can help Neighborhood Networks center staff develop youth programs.

Part One: Key Challenges and Effective Strategies in Youth Programming

Neighborhood Networks centers face five key challenges in developing effective youth programs:

- ❑ ***Articulating a clear guiding purpose***. Youth activities will vary depending on each center's overall mission and program goals. Whatever the specific mix, however, youth programming should help young people master technology. The idea is to reinforce children's basic technology skills and enable them to handle with confidence whatever technology they may later encounter.
- ❑ ***Determining the focus of youth programs***. Some Neighborhood Networks center programs help young people with homework and tie technology use to school-related projects. Others focus on offering non-school related activities and structured projects. Most centers allow for free time or games after homework is completed Some programs use an open lab approach.

Others use the computer lab as an adjunct to other after-school activities, such as art and crafts, scouting, or a broader enrichment or personal empowerment program. Neighborhood Networks centers sometimes include programs for pre-schoolers, and some have intergenerational activities.

What's the best approach? The one that fits best the needs and goals of residents. Ideally, centers will provide school support programs – but these will just be the beginning. Whatever the mix, staff, children and parents all should understand the scope and limits of the center's youth activities.

- ***Paying attention to developmental stages***. Devising a learning environment and activities that are appropriate for different age groups is a critical challenge in youth programming. Activities will need to accommodate children's varying developmental and social skills. The space itself, for example, should be adaptable for small as well as full-sized people and arranged for ease of supervision. Scheduling must take into account children's attention spans and enthusiasm. And center staff need special information about younger users, including parental permissions and telephone numbers.

  Software choices should include carefully selected programs. Software that requires fine motor control of the mouse and an understanding of relatively advanced facts or complex concepts will be inappropriate for younger children. Software stressing simplicity and repetition will bore older children. While the center should always be staffed, younger children need more structure and supervision, while older ones need more flexibility and independence. Younger users probably will need some assistance in focusing their attention and energy in the lab. This need not be intrusive control; asking them to stop to sign in and designate a preferred activity may be sufficient.

  Ideally, different age groups will be scheduled to be in the center at separate times, although there may be some open family time. The center may need different rules about which equipment can be used for what. For example, while eight-year olds may confidently use a "paint" program independently, use of scanners and photo imaging software might be restricted to older children or require direct staff supervision. Neighborhood Networks centers using the Internet also must give attention to special issues of access and safety for their younger users and be prepared to work with parents in setting boundaries for children's activities.

- ***Designing learning experiences that use technology as a tool***. The prime time for youth programs is late afternoon when centers offer after-school activities. Some centers may want to respond to the needs of working parents by providing general child care and entertainment. But Neighborhood Networks centers and center youth programs can – and should – be much more. To make best use of the investment in technology, it's important for the center to develop an active and clearly communicated educational program that complements recreation programs and hanging out with friends. The center is a place to learn by doing. When staff create that expectation, children respect it, and the center can be both manageable and enjoyable. In creating a safe and comfortable activity space, the center can teach the key lesson that learning is fun.

- ***Securing resources to maintain an effective learning environment***. Money is essential for the Neighborhood Networks center – but it's only part of the equation for the best youth-oriented centers. Equally important are thoughtful, creative and flexible staff members – paid and volunteers. Developing effective working relationships with other community organizations, especially education agencies, is also a key program component. Good partnerships not only attract varied resources to the center, they also create community and a sense of being connected to the larger society for residents.

Highlights of Effective Programs and Strategies

Supporting School Success

Neighborhood Networks centers can support academic success by helping with homework and school projects, providing information for children and parents about working effectively with the schools, and offering opportunities for participation in special programs and events to strengthen academic skills. In developing effective school support programs Neighborhood Networks centers should:

- ***Learn about your residents' schools***. Centers should make a special effort to reach out to the schools their residents attend. The centers should ask school principals and technology coordinators about the computer technology used at school and the school's expectations about computer access at students' homes. Teachers and school officials will be glad to learn about the Neighborhood Networks center offerings and many will be eager to help center staff provide a smooth connection between school and home. It may also be possible to develop relationships with particular teachers. Among the topics to discuss: What kind of computers are the schools using and what software for different ages? At what age and for what types of projects are children expected to use the Internet for research? What policies do the schools have for Internet use? Are there curriculum frameworks and standards for technology skills? Will the schools provide free or low-cost copies (including manuals and teachers' guides) of educational software currently in use? Will the schools provide training or other resources for center staff? How can your center benefit from a community service requirement?

- ***Provide an appropriate working space***. If the Neighborhood Networks center will serve as a homework center, it needs work tables and materials as well as computers and related equipment. Some centers may be able to find additional space (and staff or volunteer supervisors) for homework activities. Very small centers may be precluded from offering general homework supervision but may be able to help children use computers to work on specific projects.

- ***Use appropriate equipment and software***. The most versatile software programs are the standard office packages that can be used for writing, math and organizing stories and reports, supplemented by reference programs on CD-ROMs and the Internet. Because younger children may find a full-fledged word processor overwhelming, centers with very young participants may want to use a simplified "Works" program for them. Matching the center's word processing software to school software is advisable. Other core software might include a childrens' drawing program, publishing program, typing program and web page editor.

  There is an evergrowing supply of software labeled "educational" available in the marketplace, but some of it is not very educational. Among the academic software of interest to young users are varying levels of math, grammar and language reviews, and SAT preparation software. Often, such software uses music, graphics and games designed to make the work more fun. In choosing software, the most important questions are:

  - Will it actively engage users in learning rather than just mouse-clicking drills?
  - Do games and other features support or detract from learning?
  - Will the software help users do something new or better?
  - Is it easy to use and support in your center?
  - Is the software — especially games — consistent with the values of your program?

  Center staff should ask children what's on their software wish lists before purchasing programs. The center may be able to get a review copy and have the children test it. Center staff may also want to consult a software review site through

the World Wide Web or software reviews in various publications. For example, check out www.superchildren.com or another site listed in the box below.

- **Provide adequate and appropriate supervision**. Many children will need help developing good homework habits, in addition to help understanding specific assignments and tasks. Neighborhood Networks centers may need to recruit parents, grandparents, older youth or other volunteers to oversee homework, offer encouragement and recognize their progress. All staff need to understand how to help without taking over. Some schools provide a call-in telephone line or television program for homework help, and some teachers now arrange for e-mail help. Online homework resources are also available such as those listed in the resource section of this guide and in the following box.

Software

These websites review software for young people. Many sites accept reviews from teachers and students. Reviewing software can be an excellent project for children of all ages.

Children's Software Revue (*http://www2.childrenssoftware.com/childrenssoftware/*) — This site complements the Children's Software Revue, a print magazine with news about the Internet and software, feature articles and book reviews. The site's most popular feature is the searchable database, the Children's Software Finder™ that includes thousands of software reviews. Children's Software Revue is published by Active Learning Associates, Flemington, NJ, 1-800-993-9499.

Superkids Educational Software Review (*http://www.superchildren.com*) — This excellent site includes software reviews by children, parents and teachers. There's also a set of forms for contributing reviews.

TERC Math Games List (*http://www.terc.edu/mathequity/gw/html/gameframe.html*) — This website – part of a project to encourage greater involvement of girls in math, science and technology – describes dozens of math games and software for children of all ages. There is also a helpful article about what makes good software good.

Computer Museum Guide to the Best Software for Children — This excellent guide, written by Cathy Miranker and Allison Elliott (NY: Harper Collins, 1995), is available in print only. Additional information is on the Computer Museum website (*http://www.tcm.org*). Located in Boston, the museum has a children's software gallery where visitors of all ages can try out and rate software. Highly rated programs can be bought through the museum's website.

Homework Help

New sites are routinely coming online. Center staff may want to bookmark homework sites in the center's web browser or set up a homework help web page.

Ask Dr. Math (*http://forum.swarthmore.edu/drmath/dr-math.html*) — Learners of all ages can ask math questions at this site, which also features archives of answers and other information about math problems and topics.

B.J. Pinchbeck's Homework Helper (*http://tristate.pgh.net/~pinch13/*) — This guide to reference works and other resources was created by and for a middle-schooler, with links appropriate for all ages.

Ask A Scientist/MAD Scientist Network (*http://www.madsci.org*) — There's interesting and fun scientific information on this site (it divides home experiments into edible and inedible, for example). Centers may find it especially useful for homework help. Professional scientists answer questions for students of all ages. The site includes an archive of previous questions and answers.

StudyWeb (*http://www.studyweb.com*) — This collection of links to educational and reference sites is organized by subject matter and is especially useful for older children working on papers.

Offering Independent Learning Opportunities

Neighborhood Networks centers can provide a wide range of learning experiences for young users to develop creativity, intellectual independence and critical thinking. The center can encourage children to learn in a more relaxed environment, without the structure and pressure of tests and grades. Staff can work with children to identify their interests and devise appropriate projects. Activities can range from simple drawing or illustrating stories with clip art to more complex projects like creating web pages or learning to write a new game program with audio and video effects.

Activities can readily be geared to different ages and computer skill levels. A group of 12-year olds, for example, might help plan a community garden and, in the process, learn to use a variety of computer programs, including drawing programs, word processing to write a survey identifying residents' plant preferences and the Internet or a CD-ROM program to research growing cycles. Another group might write a cookbook of residents' favorite recipes, or prepare a community newsletter with photographs taken by a digital camera. Younger children might use a paint program to outline pictures for placemats, which they could then color with crayons and laminate. Or they could use word processing and clip art to write and illustrate a joke book. Older children might participate in a college or job preparation project where they use computers to research job opportunities and prepare resumes and applications. Such activities may be organized into larger projects or clubs.

Participating in Special Learning Opportunities

Neighborhood Networks centers may be able to participate in special projects and competitions designed primarily, but not exclusively, for school classes. These include programs such as the ThinkQuest web design, the Bayer-National Science Foundation *Award for Community Innovation*, the Computer Learning Foundation's *Our Town* project, and International Education and Resource Network (I*EARN) communications and writing projects. Contact information for these organizations appears in the resource section of this guide. Centers might also create joint projects with other Neighborhood Networks centers, community technology centers or nearby schools. Such activities may demand a different kind of staff involvement beyond coaching children in computer programs or helping with homework. But these activities can offer a richer educational program at Neighborhood Networks centers. Community or industry volunteers are excellent resources.

Providing Free Time and Special Events

A center that targets homework support ideally also will provide free time or open lab time. Most children are motivated by the chance to pursue their own projects. Older youth may be independent enough to participate in adult open lab time and appreciate being considered as adults for that purpose. Younger children may need separate time set aside as part of the after-school program or as family time, when they bring an older sibling or adult to the center. Intergenerational activities can contribute significantly to the quality of life in a housing development. Possible projects might include working together on a residents' newsletter or designing decoration for a community room.

Most centers will develop a core program that fills the daily schedule and weekly calendar. But time can still be set aside for special programs. It is especially important to provide opportunities for parents to learn about the center and their children's activities. A Neighborhood Networks center can give parents a safe, comfortable place to raise questions about technology issues, even if they are not participating in other center programs. In addition to "show and tell" sessions where the children display their new skills for their parents, centers might offer special events like a student-parent session on using the Internet to explore college options or a discussion on Internet "safety" issues such as participating in "chat rooms" and dealing with inappropriate materials on the World Wide Web. Public school and library staff may be available to participate in such programs.

Finding Staff and Volunteers for Youth Programs

Computers are no substitute for good coaches and teachers. The most effective Neighborhood Networks

center youth programs feature a strong center director, funding for additional youth staff and volunteers to complement center staff. Centers use a variety of staffing arrangements, including part-time and contract employees. A few centers have a full-time youth education coordinator. Increasingly, centers are training residents to help staff youth programs. Even the strongest centers rarely have all the paid staff they need for their youth programs. Therefore, centers should think of volunteer staffing as a strategy, with a plan for recruiting, training and recognizing the volunteers.

National programs, such as AmeriCorps VISTA: Volunteers in Service To America, can be an excellent source of volunteers for Neighborhood Networks centers. These volunteers are recruited for year-long, full-time positions in local public agencies or private nonprofit organizations. For more information about the VISTA program in your state, visit the AmeriCorps website (*http://www.americorps.org/*) or call 1-888-507-5962.

Churches and other private organizations also have volunteer programs, as do a growing number of colleges and high schools which now have community service requirements. Centers may be able to interest individual college and graduate/education students or employees from a nearby business in volunteering. Residents who have graduated from adult programs at Neighborhood Networks centers can be trained to help with youth programs. Such volunteer work may be structured as part of a path leading to paid employment.

Many centers use volunteers to supervise children, but often volunteers can play a more significant role. The best programs invite volunteers to add to the knowledge and skills available at the center and expose young people to a larger group of successful adults and mentors.

Building Community Partnerships

Successful youth programs draw heavily on partnerships with public and private agencies to support their youth education activities. Schools and community colleges are a key place to seek partners and such relationships can be extremely beneficial for the center and its users. Successful partnerships take real effort to establish and sustain. Schools operate in a more structured and formal system than Neighborhood Networks centers and some officials may be slow to see centers as educational peers. It can be helpful to cultivate one person in the school as a "champion" to help develop a good working relationship.

Good communications skills also are necessary for establishing and maintaining strong school partnerships. Both schools and Neighborhood Networks centers share a mutual interest in helping children learn. Focusing on specific projects — creating successes in the partnership — can provide a basis for more far-reaching activities.

Federally funded education programs now stress the importance of community collaborations. A strong relationship with education agencies may open up opportunities for acquiring equipment and materials, volunteers, or even participating as a community partner in a large scale grant or other program not otherwise open to Neighborhood Networks centers.

Federal Education Initiatives

Three federal initiatives may offer special opportunities, resources and ideas to Neighborhood Networks youth education programs.

America Reads seeks to ensure that every child develops strong reading skills by working at the local level through partnerships between schools, businesses and community organizations to provide reading tutors, books, summer reading programs and tips for parents. A new part of this program called **America Counts** focuses on building math skills for middle school students. Materials created for these programs may be helpful resources for Neighborhood Networks center staff. For example, *Yes, You Can* is a guide to setting up mentoring programs. See http://www.ed.gov/inits/americareads.

21st Century Community Learning Centers is a federal program which funds school-based after-school learning activities. Each project must establish a working partnership with community partners, such as Ys or Boys & Girls Clubs. In some communities, Neighborhood Networks centers may be able to become partners or provide services. See http://www.ed.gov/offices/OERI/21stCCLC.

Gear Up is a new program to help low-income middle school students and their families become more aware of and prepare for college. The program will provide grants for local collaborations that sponsor information, mentoring and enrichment programs. See http://www.ed.gov/gearup.

For each of these programs, funds are provided through competitive grants to schools or school districts. Interested Neighborhood Networks centers should reach out to their local school system to learn about participating. In some cases, a center representative may be asked to sit on a local coordinating committee, which can open doors for other resources. Materials developed for these programs will be available, usually at no cost, for use in center programs. Call *1-800-USA-LEARN*.

Part Two: Case Studies and Examples

The Gateway@Edgewood Terrace: Washington, DC

One of the first Neighborhood Networks centers, the Gateway@Edgewood Terrace, located near Catholic University in Northeast Washington, DC, has tried several approaches to after-school programs. The center is owned and operated by the Community Preservation and Development Corporation (CPDC), a nonprofit organization. Andrea Rosenthal, a seasoned educator and experienced community center staff person, directs Edgewood's youth education programs. Gateway@Edgewood Terrace expanded its youth offerings in 1998, based on programs that have worked at another CPDC-owned property, Essex House Apartments, in Montgomery County, MD.

Gateway@Edgewood Terrace has offered a traditional homework program through a partnership with Beacon House Community Ministries. At the Beacon House drop-in center at Edgewood, children can work on their homework, receive tutoring and help each other. Related crafts projects sometimes reinforce lessons. Edgewood youngsters can also go into the computer center during open lab time to do homework or pursue other technology-based interests. For instance, a student might work on math problems, then design her dream house on the computer. She would combine the math skills she learned with technological applications to create the design.

Gateway@Edgewood Terrace expanded beyond homework assistance to engage students of all ages more intensively in activities that combine academics, technology skills, enrichment and recreation. In one

project, Edgewood children used Microsoft's Magic School Bus software to learn about the solar system. Then they used Microsoft Paint to draw the solar system. They took a field trip to the National Air & Space Museum, after which they conducted research on the Internet and typed or drew (depending on their age and skill level) final reports about the solar system. The Edgewood youth program offers activities at all grade levels, on a rotating schedule. Ultimately, it will serve as many as 200 young people from the development.

Gateway@Edgewood Terrace established a special working partnership with local schools. The **School-to-Home** partnership engages teachers and principals in addressing school concerns through the youth program at Edgewood. Rosenthal negotiates with schools to share materials, and she recruits volunteers from the school community to help staff the center's youth programs. Gateway@Edgewood Terrace has arranged for students to fulfill the city schools' community service requirement by volunteering in the technology center or elsewhere at the complex. Partnering schools provide the Neighborhood Networks center with lists of the software used at school and other student activities so that the center can reinforce these learning activities.

Rosenthal is now instituting at Edgewood a **Home-to-School** program that has worked well at Essex House. The program encourages parents to become more active in their children's education by helping them learn more about how the schools are organized and how to interact effectively with school staff. Rosenthal helps parents prepare for teacher conferences and sometimes accompanies parents to these sessions. In addition, a city school representative comes to Edgewood for monthly parents' workshops on such topics as helping children with homework and getting access to summer education programs.

MACademia! at the Somerville Community Computing Center: Somerville, MA

MACademia! at the Somerville Community Computing Center welcomes neighborhood youth twice a week for 1.5 hours to learn to use Macintosh computers and engage in creative projects.

Designing web pages provides a focus for these activities. In a recent MACademia! class, younger students created web pages displaying photographs of themselves and drawings produced using Kid Pix software. The pages also include autobiographical paragraphs written with Microsoft Word. MACademia! students also used Print Shop and desktop publishing software such as Adobe PageMaker to create flyers, banners, greeting cards and newsletters to share with their families and friends. The students' work can be viewed at the Somerville center's website at *http://www2.wgbh.org/MBCWEIS/LTC/SCCC/macademia/ macademia.html*

Because children learn by playing, MACademia! uses selected computer games. Program directors are careful to reject games that are too isolating and violent or lack educational value; they are careful to supervise the use of games so that they can be a good learning experience and fun. An older group of children in the MACademia! program became "city planners" for several months using the SimCity 2000 simulation software. As described by the center's staff, the children learned by trial and error to build workable towns and cities.

> *Starting with $10,000 and bare land which they terraformed to their needs, the children zoned areas into residential, commercial, and industrial blocks, built an entire infrastructure of roads and rail, installed power plants and power lines, constructed the city services of police, fire, and hospital, determined funding for the city services, set tax rates for property/ sales/industry, and more. They have watched residents come and go, complain about the lack of city services or entertainment, and riot in the street when too many trees were destroyed. They have cajoled certain industries into building in their cities by offering attractive tax bonuses, and set pollution controls that drove other industries out. They have built homeless shelters and free clinics, and collected parking fines and income taxes. They have had problems with power shortages and floods, potholes and land*

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unstable for building. They have been mayors to the fullest sense of the word.

This project is recounted in detail by staff and participants at the Somerville Center's website: http://www2.wgbh.org/MBCWEIS/LTC/SCCC/macademia/simcity.html

The SimCity 2000 project also encouraged children to evaluate their work and learn from their mistakes. Making judgments about what they learned and how they learned, they compiled a list of "SimCity 2000 Tips and Lessons Learned" for other users and posted them on the website. In addition to giving other players ideas about how to play the game, the list demonstrates the kind of learning this group experienced. Some tips suggest ways to evaluate cost/benefit ratios in terms of mapping and using terrain for building the most cost-efficient structures. For instance, the students wrote, "Too much water makes it hard to build; not enough water makes it harder to support life as the pumps can only pump water so far from the source. A pump's ability to pump water is increased if it borders water. If all of its sides touch water, it will be four times more effective." Students also struggled with problems of providing taxes to ensure adequate revenues for their cities and keeping residents satisfied.

Another valuable lesson these children learned in the SimCity 2000 activities was that civic issues frequently don't have clear-cut solutions. The children reflect:

> *One of the most difficult parts of the game is the labor-education issue. At some point in your city's growth, development will slow down and your revenue will become thin because the industries cannot find labor to meet their needs. The reason for this is that the low-density industries, like media and finance, need a highly educated workforce. Schools, museums, and libraries will raise the EQ (educational quotient) of your citizens. But these institutions cost money to build, and you have to fund them each year, which can be very costly. So it is a Catch-22: you need to raise education in order to raise your revenue, but you need to raise revenue to be able to afford education. There is no easy solution to this real-life problem.*

This project encouraged the children to work collaboratively and to analyze why particular decisions they made resulted in various outcomes. The simulation provided engaging and intense learning as well as fun. During the project, the group met with city officials to discuss the real-world issues and implications of their game. The whole experience helped them understand relationships among people, politics and the environment, and they gained perspective about how public decisions and civic participation can affect their lives and their communities. This project also introduced them to career fields in urban planning and engineering.

This example shows how a game that could be isolating and time-wasting can become an exciting learning adventure. Neighborhood Networks centers can provide these kinds of learning experiences for young users. A center could replicate this simulation project or develop a comparable project using related computer games (SimTower, SimFarm or, for younger children, SimTown) or historical simulations (e.g., Oregon Trail, Yukon Trail) or simulated expeditions (such as Maya Quest, Africa Trail, Amazon Trail). Key factors in the success of such projects are building on the learners' interests to shape the activity and providing appropriate staff guidance to help sustain the project's focus and draw out the learning in the experience, while allowing the youth to work on their own much of the time.

The Youth Center at the Bresee Foundation: Los Angeles, CA

The Youth Center at the Bresee Foundation offers an encouraging and safe atmosphere for children in the dangerous neighborhood of South Central LA. The center's after-school program, for youngsters age 11-18, takes place in two technology rooms. The Learning Center has 10 computers where students work on homework, receive tutoring or use self-guided educational software. In the Cyberhood Computer Center's, 15 computers, students have more freedom of activity. They can pursue computer-based educational opportunities or recreational activities. Bresee encourages young people to move through a self-guided computer skills curriculum that

rewards performance with increasing opportunities, independence and sometimes, jobs.

Staff at the youth center rewrote software manuals into youth-friendly tutorials. Once students complete the basic Macintosh tutorial, they earn the privilege of learning more complex applications like Microsoft Word, Adobe PageMaker and Photoshop. After mastering these programs, the young people can attend advanced computer classes and use higher end computer equipment in the center. Students who develop an interest in desktop publishing are invited to apply for jobs with Bresee Youth Design where they earn $6 per hour producing desktop published items.

The youth center offers other job opportunities as well. Some youth are hired as student employees when they have achieved a good grasp of basic educational software and demonstrate teaching qualities. The student employees teach other students, provide customer service and learn new skills as they assist other young people. The center pays its student employees' salaries from an annual grant from the Office of Criminal Justice Planning for the City of Los Angeles.

A student-developed banking program helps children learn about commerce. The students earn points for productive educational work and they can deposit these points into the student "bank" and redeem them to purchase snacks or drinks in the student store or to pay a participation fee for special field trips. Through this activity, students learn math as well as such practical life skills as banking and valuing products and services.

The Bresee's program underscores the fact that some children, especially older youth, are motivated to learn when the skills help them achieve real-life goals. The center also highlights the potential for youth participants to contribute actively to operating a Neighborhood Networks center.

Lansing Housing Commission: Lansing, MI

In central Michigan, the Lansing Housing Commission created an innovative partnership for computer learning centers in three housing developments. Initially funded by a Drug Elimination Grant from the U.S. Department of Housing and Urban Development, the centers provide after-school and weekend learning opportunities for youth ages 8 to 18, as well as computer skills training for residents through a partnership with Lansing Community College. During out-of-school hours, children play educational games that help them with math, spelling and geography. The principal of a local school says the children's involvement in the center has raised their school performance. At least half the coaches hired by the centers to supervise the young people are residents. Lansing Housing Commission Executive Director Chris Stuchell believes that it is critical for residents to take ownership of the centers and that parental support helps motivate young people to continue in the program.

The Lansing centers receive vital support from the police. Officers are present during most of the after-school programs, working with children in the centers, meeting their parents and becoming familiar with the housing developments' communities. "The combination of the two — community policing and the computer learning centers — has resulted in almost complete elimination of crime in the developments," says Stuchell. "Our multi-family developments went from one of the most dangerous places in the city to one of the safest" (from the Lansing Computer Learning Centers video, *Children, Computers & Community: How You Can Push All the Right Buttons*).

Other Examples

The Pelham Network Center in Framingham, MA and Grier Park in Charlotte, NC also forged relationships with local law enforcement agencies to support youth programs while extending the message against drugs and violence. Local FBI agents work with the

Friendship Village Neighborhood Networks center in Virginia Beach, VA. Drug Elimination Grants can fund such activity and a town or city may have community policing funds that could be tapped as well.

At the South End Technology Center at Tent City in Boston, MA, volunteers from a community organization called Tecs-Change offer a computer repair learning program for teens. Young people learn how to repair donated equipment for recycling to less-developed countries. As they successfully complete the program, the youngsters earn a recycled computer for themselves. (See *http://www.tecschange.org.*)

Staff at the Grove Neighborhood Network in Greeley, CO created an after-school Internet adventure called "Romping Through the Rainforest." The staff set up four days of related activities on web pages, with worksheets to guide the children in gathering information about different countries, cultures and animals, playing games, drawing and painting pictures, and keeping a log of their adventures. The center staff provided links to Internet sites and games appropriate for different age groups, an "ecotourism" simulation and a coloring book. Children who started got "Rainforest Explorer" photo ID cards, and children who finished (almost all) received self-designed T-shirts. (See *http://www.islandgrove.org/aftintro.html)*

Part Three: Resources

Neighborhood Networks centers can turn to a wealth of resources to support their youth program planning and activities. First among these are community partners.

The nearest public library is a good place to start to find a partner for a Neighborhood Networks center youth education program. Many libraries have received grants from government or technology companies to expand computer access, and many now provide free public Internet access. Library staff can help develop or share teaching materials. Libraries also have print resources that may be useful, and they may be willing to acquire materials — computer magazines, books, software, CD-ROMs — that a center budget can't support. Library staff often have developed training on using web search engines and other research techniques and probably will be eager to help residents learn to use their online catalogues. Again, the best partnerships will offer mutual benefits. While the library may be able to provide supplementary resources, center staff and advanced users, including youth, may be able to assist the library in presenting special events on the Internet, for example.

Nearby businesses and labor groups may also be interested in partnering with Neighborhood Networks centers. A bank, for example, might provide funds, volunteers or surplus furniture, office supplies and equipment or help develop and present projects related to banking and credit for older children. Other nearby employers and unions also may be interested in providing information about career possibilities as well as volunteer opportunities for their staff, both in person and online.

An excellent resource for new centers is staff from other Neighborhood Networks and computer technology centers. They have created an online discussion, called **NNLearn** to explore issues of teaching and learning. To join in, send an e-mail message with contact information to *nnlearn@neighborhoodnetworks.org.*

Other e-mail lists and Internet news groups dealing with technology education — such as **Ed-Tech** and **Nettrain** — also may provide opportunities to discuss questions ranging from educational theory to installing computer memory. Most states have an organization serving school teachers using technology, and these may provide center staff with useful contacts, program ideas and even discounts on software. One contact list for such groups can be found at *http://www.iste.org/Membership/OAs/USA.html.*

This list includes a wide variety of resources providing curriculum and activity ideas, as well as other useful information for technology-based youth education programs. The universe of such resources online is growing rapidly.

American Library Association (*http://www.ala.org)* — In addition to comprehensive resources about public libraries, this site includes an excellent page of

references for children and their care givers, including suggestions for books as well as online links, and *The Librarian's Guide to Cyberspace for Parents & Children*, which covers a range of topics and issues about using the Internet safely and effectively.

Blue Web'n *(http://www.kn.pacbell.com/wired/bluewebn)* — Blue Web'n is a searchable database of outstanding Internet learning sites categorized by subject area, audience and type (lessons, activities, projects, resources, references and tools). It can be especially useful for planning classes and activities for all age groups, and includes online activities for learners. The *Blue Web'n Weekly Update* is an e-mail notice of the week's new hot picks.

College Board *(http://www.collegeboard.org)* — The section called "Starting Points for Students and Parents" covers planning for, choosing and paying for college and extensive information (sample questions, test-taking tips, schedules and online registration) on major examinations like the PSAT and SAT.

Community Technology Centers' Network (CTCNet) *(http://www.ctcnet.org)* — A national network of community technology centers, CTCNet's 280 member centers offer computer access and education. These sites are enormously diverse in program areas and participating populations. The CTCNet website links to a treasure trove of information that may be helpful to Neighborhood Networks centers. CTCNet has conducted two research studies about the impact of community technology programs. Both studies – *Community Technology Centers: Impact on Individual Participants and Their Communities* (1997) and *Impact of CTCNet Affiliates: Findings from a National Survey of Users of Community Technology Centers* (1998) – can be purchased from CTCNet for a nominal price or downloaded from the publications page of the website. CTCNet is located at Education Development Center, Inc., 55 Chapel Street, Newton, MA 02458; phone: (617) 969-7100 x2735; e-mail: ctcnet@edc.org.

Computer Learning Foundation *(http://www.computerlearning.org)* — This website provides free information to parents and educators, including articles, resource materials, information about Computer Learning Month activities and competitions, Our Town (sites where children have teamed up with local governments and businesses to construct their own town websites), links to good sites for children and families, and lesson plans and software reviews.

Educational Resources Information Center (ERIC) *(http://www.accesseric.org (1-800-LET-ERIC)* — This federally-funded information system provides services and products on a broad range of education issues. Offerings include practical and theoretical information on teaching and learning, such as digests of journal articles, lesson plans and links to other websites. The ERIC clearinghouses have a variety of brochures, guides and tip sheets for teachers and parents, including *Getting On Line: A Friendly Guide for Teachers, Students, and Parents*, and others on topics from teaching children about the environment to helping children with their homework, assessing teacher qualifications, and evaluating the appropriateness of school curriculum and instruction. Many of the most useful and accessible sub-sites are pulled together as the **National Parent Information Network** *(http://npin.org)*. Another service is **AskERIC**, through which you can ask questions and receive answers by e-mail about education topics (send questions to askeric@ericir.syr.edu). The question and answer service on the AskERIC web page is at *http://www.askeric.org*.

Equity On-Line *(http://www.edc.org/WomensEquity)* — This site, part of the national Equity Resource Center for the Women's Educational Equity Act, provides data and resources on diversity issues, access to online discussion and courses, and ideas for curricula and projects promoting gender equity for girls and boys of all ages. "Women of the Week" features brief biographies of notable women in all fields.

Healthfinder *(http://www.healthfinder.gov)* — This U.S. Department of Health and Human Services gateway site links to a wide variety of information and resources on health, including medical dictionaries, support groups, hotlines, clinical reports, medical journals and other resources accessible to the general public. You can also call the National Health Information Center at 1-800-336-4797.

I*EARN (International Education and Resource Network) *(http://www.iearn.org)* — I*EARN is a youth telecommunications network that facilitates international collaboration on classroom and other projects. Based on e-mail exchanges, participants from more than 30 countries prepare, share, and develop opinions, research and writings on an astonishing range of topics, from cultural matters to environmental issues. While most projects have involved teens in school settings, I*EARN welcomes community-based participants as members.

Internet Public Library *(http://www.ipl.org)* — This site aims to organize the Internet for all ages. It includes separate youth and teen divisions, with age-appropriate activities and links. The Youth Division page includes websites for science projects, a tour of a car factory and a "story hour" page. The Teen Division includes links to information on writing research papers, careers, and dating and other social issues. This section also has an extensive set of links to homework help sites.

Children Food Cyber Club *(http://www.childrenfood.org)* — This site includes information, activities and even recipes geared to teaching children about good nutrition.

Learn & Live *(http://www.glef.org/learnlive/gframe.html)* — The George Lucas Educational Foundation compiled the *Learn & Live* book and videotape to support effective public education and the innovative use of technology. While many of the anecdotes are geared toward public schools, some listed resources can help community-based organizations and Neighborhood Networks centers. The package (book and one-hour documentary film) is available from the George Lucas Educational Foundation for $20 by calling 1-888-4RKIDS1 or centers can access the online versions of the book and the video free of charge at the website.

MaMa Media *(http://www.mamamedia.com)* — This is a free online community for younger children geared to creative and fun activities and exchange, separate from homework or school subjects.

NASA's Quest Project *(http://quest.arc.nasa.gov)* — The Quest project is a service of the Education Program of the National Aeronautics and Space Administration (NASA). Students can take virtual NASA tours with experts and participate in online projects with NASA scientists. The site also provides tips for educators about using the Internet in the classroom, as well as information about grant and funding opportunities. Other NASA sites include photographs from the Hubble Space Telescope and other space activities, including shuttle missions.

National Geographic On-line *(http://www.nationalgeographic.com)* — The site contains feature articles from *National Geographic* magazine, as well as educational features for adults and children. A special section, National Geographic CHILDREN, provides educational games, interesting stories and a pen pal network. The Geography Education page offers ideas for educators, as well as networking opportunities and resources.

National Institute on Out-of-School Time (NIOST) *(http://www.wellesley.edu/WCW/CRW/SAC/niost.html)* — The Institute's mission is to improve school-age child care programs nationally through collaborations with communities, individuals and organizations, and to increase public awareness of the importance of children's out-of-school time. It concentrates on research, education and training, consultation and program development. The National Institute on Out-of-School Time is located at the Center for Research On Women, Wellesley College, 106 Central Street, Wellesley, MA 02181; (781) 283-2547.

National Science Foundation *(http://www.nsf.gov)* — Supplementing its primary mission supporting scientific research and education, NSF sponsors an annual National Science and Technology Week. It provides free educational materials and hands-on activities about science for elementary through junior high students, and it is adaptable for pre-schoolers and teenagers. In 1998, the week's focus was "Polar Connections." Activities included a simulated polar visit with a rescue mission during whiteout conditions and a project making arctic sun goggles. Some centers may wish to join a local or regional partner in the NSTW Network. The online materials include a contact list. NSF also manages the Bayer-NSF Award for Community Innovation, a competition in which

teams of middle school-age youth (with adult coaches) apply science and technology to real-world problems (e.g., building safe play spaces, cleaning up pollution). While most teams are from schools, some are from community organizations. Information on how to participate is posted on the NSF website.

Neighborhood Networks *(http://www.neighborhoodnetworks.org)* — The official Neighborhood Networks website offers a wealth of information about the initiative and centers' activities, including copies of newsletters, fact sheets and other publications, and a searchable resource database organized by topic. Neighborhood Networks centers can use the contacts database to get contact information for other centers.

PBS On-Line *(http://www.pbs.org)* — Many PBS series have their own web pages, accessible through the main PBS website, and the children' section includes contests and games. Major programs, such as the fall 1998 series *Africans in America*, have extensive supplemental materials, including audio and video files, on the website. PBS also includes a variety of learning activities and resources related to literacy and learning English.

Science Junction *(http://www.ncsu.edu/sciencejunction)* — This site contains information for teachers and students about a wide variety of science topics, with links to scientific journals, museums and other resources. Its *Student Station* includes games and experiments to try at home and demonstrations and information on Internet-based science projects.

ThinkQuest *(http://www.thinkquest.org)* — ThinkQuest and ThinkQuest Junior are international web design contests open to Neighborhood Networks centers. Youth (ages 12-19) and children (grades 4-6) team with adult coaches to develop educational websites on topics of their choosing. These sites then are hosted on the "library" section of the ThinkQuest site and can be used for center program activities.

Uncle Sam for Children *(http://www.win.org/library/mats/govdocs/children.htm)* — This Missouri Public Library site links to government information about a variety of topics, especially American government and political history, and also some world history, geography and science. Links include the White House tour for children, flags of many nations, the electronic zoo and information on scouting merit badges.

U.S. Department of Education Publications and Products *(http://www.ed.gov (1-800-USA-LEARN)* — The Education Department's website provides access to education policies, statistics, resource directories and catalogues, as well as newsletters, journals, and a wealth of accessible publications for teachers, parents and older students. Many of these can be downloaded directly from the site or ordered for little or no cost; some are published in Spanish as well as English. Materials include tip sheets and project ideas originally designed for K-12 school activities. These can be used in Neighborhood Networks centers. The department publishes the *Helping Your Child* series (learn to read, learn math, do homework, etc.) and *Summer Home Learning Recipes*. Publications related to preparing for and funding college include *Think College? Me? Now?* and the *Student Guide to Financial Aid*. Neighborhood Networks centers may also make good use of *The Parents' Guide to the Internet* as a reference or for parent information programs.

Federally-funded regional technical assistance centers support school districts and teachers in various ways, from meeting the needs of bilingual, high-poverty, migrant and at-risk youth to integrating technology into education programs. These centers conduct research, provide training, support school reform efforts and disseminate information on a variety of educational issues. While they work primarily with schools, Neighborhood Networks centers may find the regional centers a useful source of materials and, perhaps, staff consultation. The Comprehensive Regional Assistance Centers may have useful resources on such issues as assessment and working with special student populations. Contact information can be found on the national website: *http://www.wested.org/cc/html/ ccnetwork.htm*. Similarly, the Regional Technology in Education Consortia may have resources on using technology for education of different age groups and related professional development opportunities. The

consortia's national website contains links to the regional offices: *http://www.rtec.org*.

FREE (Federal Resources for Educational Excellence) (*http://www.ed.gov/free*) is a sub-site that links to scores of educational information and activities at other federal agencies. Many, but not all, use computers and the web. Information links are organized by major topic (e.g., art, social studies, educational technology) and then by agency; a search engine called GEM is also available. This gateway can lead to innumerable project ideas, resources and research information for youth of all ages. The links include virtual tours to the National Parks and the National Gallery of Art, cool stuff at the FBI, a project on making money at the Bureau of Engraving and Printing, and others. There is access to many collections of art, music and historical documents. Older youth may find this a useful research route; for younger children, staff may need to help find age-appropriate pages and adapt some activities.

Well Connected Educator (*http://www.gsh.org/wce*) — This is a Global Schoolhouse project site for information and discussion about educational technology. It includes a variety of articles and forums of interest to community-based as well as K-12 teachers, including links to project and resource websites.

Yahooligans! (*http://www.yahooligans.com*) — Yahooligans! is the children's version of the Yahoo! search site. It's designed to make web searching easier for children, and helps them find sites appropriate for their use. Search topics include: Around the World (countries, food, holidays), Art Soup (books, drama, dance), Computers & Games (games, web, screen savers), Entertainment (TV, movies, jokes, music), School Bell (social studies, homework, math), Science & Oddities (space, animals, dinosaurs), Sports & Recreation (football, hobbies, wrestling) and The Scoop (newspapers, weather, events).

Yucky (*http://www.yucky.com*) — Yucky describes its focus as science entertainment. It provides information and activities for children age 6-15 about the natural world, with special focus on worms, bugs and the human body (one section is called "Gross/Cool Body"). It also includes a web page on Internet safety issues, including links to about a dozen web-filtering products.